

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Atty. Docket No: 03495-0213

In re patent application of

FLAMAND, MARIE et al.

Serial No. 09/980,839

Filed: December 7, 2001

For: EARLY DETECTION OF FLAVIVIRUSES USING THE NS1
GLYCOPROTEIN

STATEMENT TO SUPPORT FILING AND SUBMISSION IN
ACCORDANCE WITH 37 C.F.R. §§ 1.821-1.825

Assistant Commissioner for Patents
Washington, D.C. 20231
Box SEQUENCE

Sir:

In connection with a Sequence Listing submitted concurrently herewith, the undersigned hereby states that:

1. the submission, filed herewith in accordance with 37 C.F.R. § 1.821(g), does not include new matter;

2. the content of the attached paper copy and the attached computer readable copy of the Sequence Listing, submitted in accordance with 37 C.F.R. § 1.821(c) and (e), respectively, are the same; and

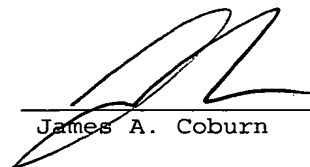
3. all statements made herein of their own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United

Serial No. 09/980,839

States Code and that such willful false statements may jeopardize the validity of the application or any patent resulting therefrom.

Respectfully submitted,

April 23, 2002
Date


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SEQUENCE LISTING

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 MEGRET, FRANCOIS
 ALCON, SOPHIE
 TALARMIN, ANTOINE
 DESPRES, PHILIPPE
 DEUBEL, VINCENT

<120> EARLY DETECTION OF FLAVIVIRUSES USING THE NS1
 GLYCOPROTEIN

<130> 03495-0213

<140> 09/980,839
 <141> 2001-12-07

<150> PCT/FR00/01620
 <151> 2000-06-09

<150> FR 99/07290
 <151> 1999-06-09

<150> FR 99/07361
 <151> 1999-06-10

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aca ctg tac cta gga gtc atg gtt caa gcg gac tcg gga tgt gta atc	96
Thr Leu Tyr Leu Gly Val Met Val Gln Ala Asp Ser Gly Cys Val Ile	
20 25 30	
aac tgg aag ggc aga gaa ctc aaa tgt gga agt ggc att ttt gtc act	144
Asn Trp Lys Gly Arg Glu Leu Lys Cys Gly Ser Gly Ile Phe Val Thr	
35 40 45	
aat gaa gtc cac act tgg aca gag caa tac aaa ttc cag gct gac tcc	192
Asn Glu Val His Thr Trp Thr Glu Gln Tyr Lys Phe Gln Ala Asp Ser	
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cca aaa aga ctg tca gca gcc att ggg aag gca tgg gag gag ggc gtg	240
Pro Lys Arg Leu Ser Ala Ala Ile Gly Lys Ala Trp Glu Glu Gly Val	
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Cys Gly Ile Arg Ser Ala Thr Arg Leu Glu Asn Ile Met Trp Lys Gln	
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ata tca aat gaa ttg aac cac att cta ctt gaa aat gac atg aaa ttc	336
Ile Ser Asn Glu Leu Asn His Ile Leu Leu Glu Asn Asp Met Lys Phe	
100 105 110	
aca gtg gtt gta gga gat gct aat gga att ttg gcc cag ggg aaa aaa	384
Thr Val Val Val Gly Asp Ala Asn Gly Ile Leu Ala Gln Gly Lys Lys	
115 120 125	
atg atc agg cca caa ccc atg gaa cac aaa tac tca tgg aaa agc tgg	432
Met Ile Arg Pro Gln Pro Met Glu His Lys Tyr Ser Trp Lys Ser Trp	
130 135 140	
gga aaa gcc aag atc ata gga gca gac aca cag aat acc acc ttc atc	480
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145 150 155 160	
atc gac ggc cca gac act cca gaa tgc ccc gat gac caa aga gcg tgg	528
Ile Asp Gly Pro Asp Thr Pro Glu Cys Pro Asp Asp Gln Arg Ala Trp	
165 170 175	
aac att tgg gaa gtt gag gac tat ggg ttt gga att ttc acg aca aac	576
Asn Ile Trp Glu Val Glu Asp Tyr Gly Phe Gly Ile Phe Thr Thr Asn	
180 185 190	
ata tgg ctg aaa ttg cgt gac tcc tac acc caa atg tgt gac cac cgg	624
Ile Trp Leu Lys Leu Arg Asp Ser Tyr Thr Gln Met Cys Asp His Arg	
195 200 205	
cta atg tca gct gcc gtc aag gac agc aag gca gtc cat gct gac atg	672
Leu Met Ser Ala Ala Val Lys Asp Ser Lys Ala Val His Ala Asp Met	
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ggg tac tgg ata gaa agt gaa aag aac gag acc tgg aag cta gcg aga	720
Gly Tyr Trp Ile Glu Ser Glu Lys Asn Glu Thr Trp Lys Leu Ala Arg	
225 230 235 240	
gcc tcc ttc ata gaa gtc aag aca tgc att tgg ccg aaa tcc cac act	768
Ala Ser Phe Ile Glu Val Lys Thr Cys Ile Trp Pro Lys Ser His Thr	
245 250 255	
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Leu Trp Ser Asn Gly Val Leu Glu Ser Glu Met Ile Ile Pro Lys Ile	
260 265 270	
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Tyr Gly Gly Pro Ile Ser Gln His Asn Tyr Arg Pro Gly Tyr Phe Thr	
275 280 285	

caa aca gca ggg cca tgg cac cta ggt aag ttg gaa ttg gat ttt gac 912
 Gln Thr Ala Gly Pro Trp His Leu Gly Lys Leu Glu Leu Asp Phe Asp
 290 295 300

 ttg tgt gaa ggc acc aca gtt gtt gtg gat gaa cat tgt gga aat cga 960
 Leu Cys Glu Gly Thr Thr Val Val Val Asp Glu His Cys Gly Asn Arg
 305 310 315 320

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 Gly Pro Ser Leu Arg Thr Thr Thr Val Thr Gly Lys Ile Ile His Glu
 325 330 335

 tgg tgt tgc aga tcc tgc acg tta ccc ccc tta cgc ttc aga gga gaa 1056
 Trp Cys Cys Arg Ser Cys Thr Leu Pro Pro Leu Arg Phe Arg Gly Glu
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 gac gga tgt tgg tat ggc atg gaa atc aga cca gtt aag gag aag gag 1104
 Asp Gly Cys Trp Tyr Gly Met Glu Ile Arg Pro Val Lys Glu Lys Glu
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<211> 378

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<213> Dengue virus type 1

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 Thr Leu Tyr Leu Gly Val Met Val Gln Ala Asp Ser Gly Cys Val Ile
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 Asn Trp Lys Gly Arg Glu Leu Lys Cys Gly Ser Gly Ile Phe Val Thr
 35 40 45

 Asn Glu Val His Thr Trp Thr Glu Gln Tyr Lys Phe Gln Ala Asp Ser
 50 55 60

 Pro Lys Arg Leu Ser Ala Ala Ile Gly Lys Ala Trp Glu Glu Gly Val
 65 70 75 80

 Cys Gly Ile Arg Ser Ala Thr Arg Leu Glu Asn Ile Met Trp Lys Gln
 85 90 95

 Ile Ser Asn Glu Leu Asn His Ile Leu Leu Glu Asn Asp Met Lys Phe
 100 105 110

 Thr Val Val Val Gly Asp Ala Asn Gly Ile Leu Ala Gln Gly Lys Lys
 115 120 125

 Met Ile Arg Pro Gln Pro Met Glu His Lys Tyr Ser Trp Lys Ser Trp
 130 135 140

Gly	Lys	Ala	Lys	Ile	Ile	Gly	Ala	Asp	Thr	Gln	Asn	Thr	Thr	Phe	Ile	145	150	155	160
Ile	Asp	Gly	Pro	Asp	Thr	Pro	Glu	Cys	Pro	Asp	Asp	Gln	Arg	Ala	Trp	165	170	175	
Asn	Ile	Trp	Glu	Val	Glu	Asp	Tyr	Gly	Phe	Gly	Ile	Phe	Thr	Thr	Asn	180	185	190	
Ile	Trp	Leu	Lys	Leu	Arg	Asp	Ser	Tyr	Thr	Gln	Met	Cys	Asp	His	Arg	195	200	205	
Leu	Met	Ser	Ala	Ala	Val	Lys	Asp	Ser	Lys	Ala	Val	His	Ala	Asp	Met	210	215	220	
Gly	Tyr	Trp	Ile	Glu	Ser	Glu	Lys	Asn	Glu	Thr	Trp	Lys	Leu	Ala	Arg	225	230	235	240
Ala	Ser	Phe	Ile	Glu	Val	Lys	Thr	Cys	Ile	Trp	Pro	Lys	Ser	His	Thr	245	250	255	
Leu	Trp	Ser	Asn	Gly	Val	Leu	Glu	Ser	Glu	Met	Ile	Ile	Pro	Lys	Ile	260	265	270	
Tyr	Gly	Gly	Pro	Ile	Ser	Gln	His	Asn	Tyr	Arg	Pro	Gly	Tyr	Phe	Thr	275	280	285	
Gln	Thr	Ala	Gly	Pro	Trp	His	Leu	Gly	Lys	Leu	Glu	Leu	Asp	Phe	Asp	290	295	300	
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Gly	Pro	Ser	Leu	Arg	Thr	Thr	Thr	Val	Thr	Gly	Lys	Ile	Ile	His	Glu	325	330	335	
Trp	Cys	Cys	Arg	Ser	Cys	Thr	Leu	Pro	Pro	Leu	Arg	Phe	Arg	Gly	Glu	340	345	350	
Asp	Gly	Cys	Trp	Tyr	Gly	Met	Glu	Ile	Arg	Pro	Val	Lys	Glu	Lys	Glu	355	360	365	
Glu	Asn	Leu	Val	Arg	Ser	Met	Val	Ser	Ala							370	375		